

ABSTRACT

A roll transport and splicing vehicle is disclosed which is adapted to splice a new roll onto an expiring roll supported in an unwind station. The vehicle lifts and transports new rolls of material prepared with an adhesive splice pattern in the conventional manner of flying splices. The vehicle then carries the roll into an exact position next to an unwind stand and this roll is then automatically spliced into the expiring web in the unwind stand. The expired roll is severed from the web, and its coreshaft or corechucks are moved from the unwind stand to a position over the new roll, and the new roll is moved into the position formerly occupied by the expired roll. The vehicle then moves from the unwind stand, conveying the expired roll assembly to a roll storage location from which another new roll may be retrieved.

SUMMARY OF THE INVENTION

The present invention is small and portable, requiring little or no change to the press arrangement, only a speed sensor and dispensing roll diameter sensor on the web utilizing device, and locating disks in the floor. The apparatus may be computer controlled to automatically retrieve and move a new roll into a position next to the dispensing roll, to then splice the new roll with the exiting web from the dispensing roll, and to replace the depleted dispensing roll with a new dispensing roll, without interrupting the web supply. Of particular advantage is the ability of this portable splicer to consecutively service unwind devices on a variety of web utilizing devices. Optional provision is made to retain the rotational direction of the actively unwinding roll before and after splicing, a common requirement when using paper having different finishes on each side.